

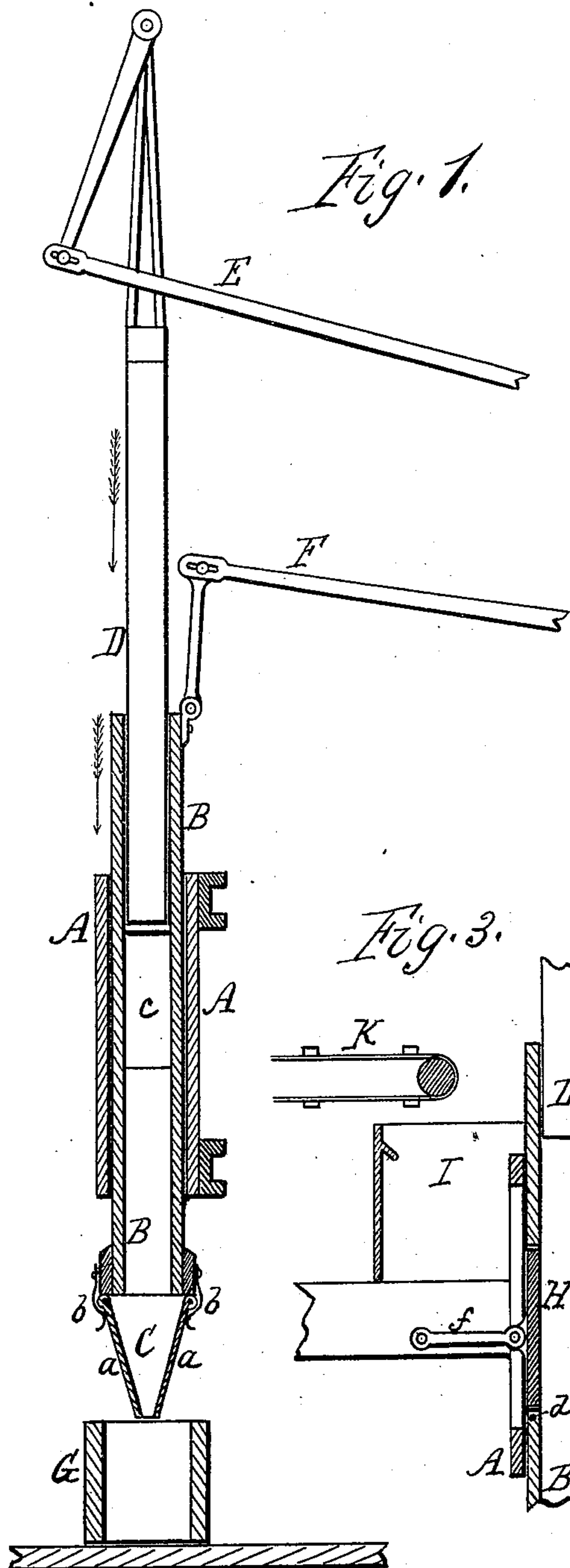
(No Model.)

H. D. WHIPPLE.

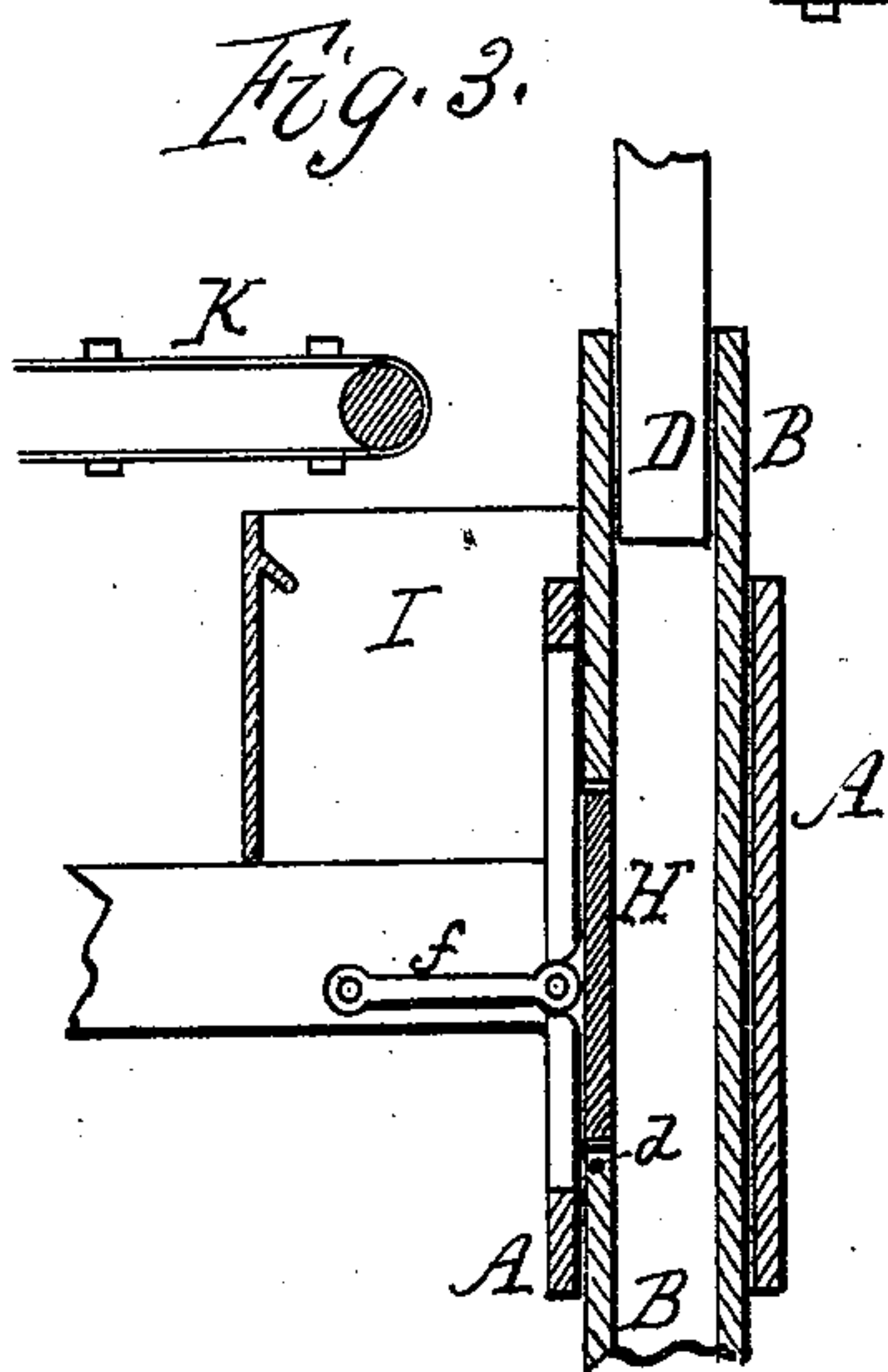
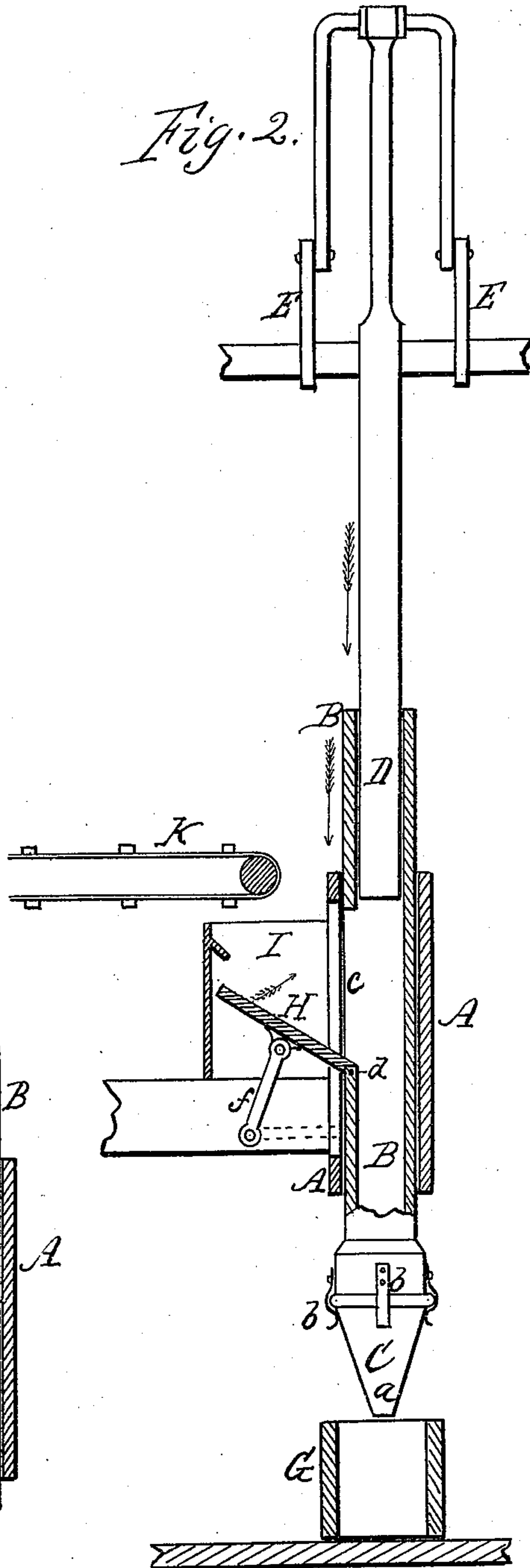
FEEDING ATTACHMENT FOR PACKING AND WRAPPING MACHINES.

No. 545,564.

Patented Sept. 3, 1895.



Witnesses:
J. J. Culver
H. S. Hutchinson.



Inventor.
Henry D. Whipple,
per R. F. Cogood,
Attorney.

UNITED STATES PATENT OFFICE.

HENRY D. WHIPPLE, OF ROCHESTER, ASSIGNOR TO THE AUTOMATIC MACHINERY COMPANY, OF PORT BYRON, NEW YORK.

FEEDING ATTACHMENT FOR PACKING AND WRAPPING MACHINES.

SPECIFICATION forming part of Letters Patent No. 545,564, dated September 3, 1895.

Application filed January 17, 1895. Serial No. 535,239. (No model.)

To all whom it may concern:

Be it known that I, HENRY D. WHIPPLE, of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Feeding Attachments for Packing and Wrapping Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the drawings accompanying this application.

My improvement relates to the feeding apparatus of packing and wrapping machines of that class where the feeding is done intermittently; and the invention consists in the combination and arrangement of parts hereinafter described, and embodied in the claims.

In the drawings, Figure 1 is a longitudinal vertical section of the feeding apparatus. Fig. 2 is a similar section at right angles to Fig. 1, showing the swinging valve open in position to receive the charge. Fig. 3 is a similar view of the central portion, showing the valve closed, the charge being deposited in the tube and ready to be forced downward.

In general features the feeding attachment is similar to that shown in the application of Henry D. Whipple and Edwin M. Slayton, filed September 25, 1891, Serial No. 406,855.

A indicates an external tube or socket-piece rigidly attached to the frame of the machine.

B is an internal tube forming the feeding-tube, resting inside the external tube and sliding freely up and down. At the bottom of the tube B is a wedge-shaped point C, consisting of four thin plates *a a a a*, hinged at their upper ends to the end of the tube, so as to swing outward, and pressed inward by light springs *b b*.

D is a plunger with a solid end resting in and filling the feeding-tube B, but movable freely therein. The tube B and plunger D are operated by rock-arms E F, as shown in the drawings, or by any other suitable means.

G is one of a series of receptacles which move beneath the filling-tube, into which the material is deposited to be wrapped, the wrapper also being placed within the receptacle, as described in the before-mentioned application.

My improvement is as follows: The external

tube A and feeding-tube B are each provided on one side with an opening *c*, through which the material is inserted. H is a valve forming a chute pivoted at *d* to the bottom of the opening of the interior tube. It is of such size as to close into the opening and fill the same, thus completing the side of the tube. When open, it stands in the inclined position shown in Fig. 2, and forms the chute to receive the material and force it into the tube. *f* is a link pivoted at one end to the back of the valve and at the other to a bar *g* or some other stationary part of the frame of the machine. The link is of such length that when the feeding-tube is forced down to its full extent the link swings in horizontally, as shown in Fig. 3, and closes the valve into the side of the tube and holds it there. I is a hopper that incloses the valve, and K is an endless apron provided with lags between which the material is fed in charges of determinate weight and from which said charges fall onto the valve below. In operation the material drops from the endless apron upon the valve. The feeding-tube B is then forced down to its lowest extent, the point C entering the receptacle. This movement causes the valve H to close automatically and force the charge in a body into the tube. The link *f* acts as a fulcrum to turn the valve. When this is accomplished, the plunger D moves down and forces the charge down into the hollow point of the feeding-tube. This action expands the wings *a a* against the sides of the receptacle. The tube B now rises, while the plunger remains stationary, and the latter, holding the charge in place, allows the wings *a a* to be withdrawn from the receptacle without disturbing the charge.

By the means above described the material, as fast as it falls upon the valve, is automatically forced into the feeding-tube in successive charges and in the best condition, obviating the bunching and undue compression in some parts of the material where it is forced in by the hand, which is the usual practice. It is particularly effective in packing tobacco, which, from its light and fibrous nature, is difficult to insert by hand and is liable to bunch or pack hard in some parts of the charge.

Having described my invention, I do not claim, broadly, in this application the feeding-tube, expanding-point, and plunger shown in the pending application of Whipple and Slayton, filed September 25, 1891, Serial No. 406,855.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a packing and wrapping machine, the combination of a stationary support, a feeding tube movable therein, a plunger resting in the tube, having independent movement, a movable valve covering an opening in the feeding tube, and means for closing the valve automatically when the feeding tube receives longitudinal movement.

2. In a packing and wrapping machine, the combination of a stationary support, a feeding tube movable therein, a plunger resting in the feeding tube, having independent movement, a movable valve covering an opening in the feeding tube, and a link pivoted at one end to the valve and at the other to a sta-

tionary support, and serving to close the valve when the feeding tube receives longitudinal movement.

3. In a packing and wrapping machine, the combination of a stationary support, a feeding tube movable therein, a plunger resting in the feeding tube, having independent movement, a movable valve covering an opening in the feeding tube and forming a chute to receive the material to be acted on, a link attached to the valve and to a stationary support, serving to close the valve when the feeding tube receives longitudinal movement, and an endless apron for feeding the material to the valve.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

HENRY D. WHIPPLE.

Witnesses:

R. F. OSGOOD,
CHAS. A. WIDENER.